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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------------|---------------------|------------------|
| 09/784,517 | 02/15/2001 | John W. Linebarger | 1459 | 3317 |
| 7590 11/20/2003 | | | | |
| SPRINT 6391 SPRINT PARKWAY OVERLAND PARK, KS 66251 | | EXAMINER PAYNE, DAVID C | | |
| | | ART UNIT 2633 | | PAPER NUMBER |
| DATE MAILED: 11/20/2003 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.



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Attn: Harley R. Ball
Sprint Law Department
Mailstop: MOKCMP0503
8140 Ward Parkway
Kansas City, MO 64114

EXAMINER

PAYNE, DAVID C

ART UNIT PAPER NUMBER

2633

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Office Action Summary

Application No.

09/784,517

Applicant(s)

LINEBARGER ET AL.

Examiner

David C. Payne

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 9, 11, 12, 18 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Pangrac et al. US 2001/0030785 (Pangrac).

Regarding claim(s) 1, 9, 32

Pangrac disclosed (Figure 4, e.g., page 14 paragraph 0091)

A method for transmitting signals comprising:

transmitting a data signal (Computer #113) over a first wavelength (carrier based signal) on a single fiber strand;

and

transmitting a radio frequency (Video #111) signal over a second wavelength on the same single fiber strand.

Regarding claim(s) 2, 3, 4, 5, 18

Pangrac disclosed (Figure 3 or 4, page 14, paragraph 0091)

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transmitting a plurality of data signals (151-1, 147-1) over a first wavelength;

and

transmitting a plurality of other radio frequency signals (121-x) F over a second wavelength.

Regarding claim(s) 6

Pangrac disclosed

wherein the data signal comprises an Ethernet based signal (page 5, paragraph 0039).

Regarding claim(s) 7

Pangrac disclosed

wherein the data signal comprises an asynchronous signal (page 5, paragraph 0039).

Regarding claim(s) 11 and 12,

Pangrac disclosed an infrastructure that is at once a local multipoint distribution system and multipoint multi-channel distribution service signal given that a plurality of services from a service node are distributed to a number of users over multiple wavelengths.

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pangrac et al. US 2001/0030785 (Pangrac) in view of Cheong et al. US 6,477,154 B1 (Cheong).

Regarding claim(s) 10

Pangrac does not disclose

wherein the radio frequency signal comprises a person communication service signal.

Cheong disclosed transporting PCS signals over an optical infrastructure (e.g., col./line: 4/40-47).

It would have been obvious to one of ordinary skill in the art at the time of invention to connect the Pangrac infrastructure to a PCS system for the benefit of offering complementary wireless telephony and data services to the user as with the telephony services as shown in Pangrac (Figure 4 #115).

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pangrac et al. US 2001/0030785 (Pangrac) in view of Cyr et al. US 6,223,055 B1 (Cyr).

Regarding claim(s) 13

Pangrac does not disclose

wherein the radio frequency signal comprises unlicensed radio frequency spectrum signal.

Cyr disclosed unlicensed radio frequency spectrum use in a networked environment (e.g., col./line: 5/15-25).

It would have been obvious to one of ordinary skill in the art at the time of invention to route unlicensed radio spectrum over the Pangrac infrastructure for providing ubiquitous service to all user groups. Furthermore, Cyr disclosed in the same passage the large number of customers who have access to this type of service. The combination of the two merely provides another access mechanism to a larger group of customers who might take other data services on the Pangrac infrastructure.

6. Claims 8, 19-27, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pangrac et al. US 2001/0030785 (Pangrac).

Regarding claim(s) 8

Pangrac does not disclose that the data signal comprises a synchronous optical network based signal. However, Pangrac does disclose that the system incorporates a public switched telephone network. It would have been obvious to one of ordinary skill in the art at the time of invention the long practice of modern

public networks to use synchronous optical networks for the benefit of a hierarchical multiplexing high-speed transmission means (e.g., page 5, paragraph 0040).

Regarding claim(s) 19

Pangrac does not disclose a first and second node transmitting data and radio frequency signals exactly as claimed. However, Pangrac does disclose that the individual nodes, e.g., (109-1) and (109-2) transmit the data and RF signals over different wavelengths. It would have been obvious to one of ordinary skill in the art at the time of invention that the nodes would be configured to transmit data and RF over similar corresponding wavelengths for the benefit of reduced wavelength assignment for similar functions in the network and aggregating similar signals in the network a common service points.

Regarding claim 20, 24

Pangrac disclosed a switch/cross connect (Fig. 2 #205) fiber optic transmitter (Fig. 3 #127) and fiber optic receiver (Fig. 3 #129).

Regarding claim 21, 25, 33

Pangrac's switch is by definition a data matrix and radio frequency matrix since it is operable to cross-connect these signals.

Regarding claim 22, 26

The Pangrac optical transceivers (421-1) transmit mixed traffic by definition since the transmitter transmits both data and RF signals over WDM.

Regarding claim 23, 27

while Pangrac does not describe the node (Fig. 2, page 11 paragraph 0075) as a service node and point of presence, it would have been obvious to one of ordinary skill in the art at the time of invention that the node functions as the applicant has claimed since it is a central distribution a number of servers of telephony, computer and video services.

7. Claims 14-17, 28-31, 34-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pangrac et al. US 2001/0030785 (Pangrac) in view of Yoo US 6,519,062 (Yoo).

Regarding claim(s) 14-17, 28-31, 34-37, and 39-42

Pangrac does not disclose cross-connecting data or radio frequencies between wavelengths or paths. Yoo disclosed cross-connecting wavelengths on alternate paths (see Figure 4). It would have been obvious to one of ordinary skill in the art at the time of invention to provide the wavelength switching/routing function of Yoo in the Pangrac invention for the benefits as disclosed in Yoo (see e.g., col./line: 5/64-67, 6/1-5), namely, contention resolution for routing paths.

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Regarding claim 38,


While the Pangrac and Yoo do not disclose using a jumper in the switch, it would have been obvious to one of ordinary skill in the art the time of invention that jumpers can be used to connect points in a cross point switch. The principle of connecting endpoints in a switch is extremely well known in the art and does not constitute patentable subject matter.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (703) 306-0004. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Dcp